

Scandinavian Journal of **Immunology**

OFFICIAL JOURNAL OF THE SCANDINAVIAN SOCIETY
FOR IMMUNOLOGY

Volume 33
Numbers 1-6/1991

MANAGING EDITORS
M. HARBOE, J. B. NATVIG AND G. MÖLLER

Volume Contents

Blackwell Scientific Publications

OXFORD LONDON EDINBURGH
BOSTON MELBOURNE
PARIS BERLIN VIENNA

© 1991 Blackwell Scientific Publications. Authorization to photocopy for internal or personal use or for the internal or personal use of specific clients is granted by Blackwell Scientific Publications for libraries and other users registered within the Copyright Clearance Center (CCC) Transactional Reporting Service, provided that the base fee of \$05.00 per copy is paid directly to the CCC, 27 Congress Street, Salem, MA 01970, USA. This consent does not extend to other kinds of copying, such as copying for general distribution for advertising or promotional purposes, for creating new collective works or for resale. Special requests should be addressed to the Editor; 0300-9475/91 \$05.00.

Published for the Scandinavian Society for Immunology by Blackwell Scientific Publications Ltd
Osney Mead, Oxford, OX2 OEL, UK
25 John Street, London WC1N 2BL, UK
23 Ainslie Place, Edinburgh, EH3 6AJ, UK
3 Cambridge Center, Suite 208, Cambridge, MA 02142, USA
54 University Street, Carlton, Victoria 3053, Australia

Other editorial offices

Arnette SA, 2 rue Casimir-Delavigne, 75006 Paris, France
Blackwell Wissenschaft, Meinekestrasse 4, D-1000 Berlin 15, Germany
Blackwell MZV, Feldgasse, A-1238 Wien, Austria

ISSN 0300-9475

Contents

Volume 33, No. 1, January 1991

EDITOR'S NOTE: improved publishing of the <i>Scandinavian Journal of Immunology</i>	1
The Nobel Lectures in Immunology	
Lecture for the Nobel Prize for Physiology or Medicine, 1960: Immunological Recognition of Self. <i>Frank MacFarlane Burnet</i>	3
Idiotypic Profile of Natural Autoantibodies in Newborn and Young Adult BALB/c Mice. <i>M. Zöller & M. Achtnich</i>	15
Autoreactive Antibodies in Thymus and Spleen of Neonatal and Young Adult BALB/c Mice: Influence of Prenatal Tolerization. <i>M. Achtnich & M. Zöller</i>	25
A Tumour Necrosis Factor Beta Gene Polymorphism in Relation to Monokine Secretion and Insulin-Dependent Diabetes Mellitus. <i>F. Poicot, J. Mølviq, L. Wogensen, H. Worsaae, H. Dalbøge, L. Bæk & J. Nerup</i>	37
Use of Size Fractionation of in Vitro-Activated Human B Lymphocytes for Studies of Cell Cycle-Dependent Growth Regulation. <i>B. K. Erikstein, P. Schwarze, H. Kiil Blomhoff, S. Funderud, T. Stokke & E. B. Smeland</i>	51
Lyme Arthritis: Oligoclonal Anti-Borrelia burgdorferi IgG Antibodies Occur in Joint Fluid and Serum. <i>M. Cruz, K. Hansen, J. Ernerudh, A. C. Steere & H. Link</i>	61
Multiple Sclerosis: Cells Secreting Antibodies Against Myelin-Associated Glycoprotein are Present in Cerebrospinal Fluid. <i>S. Baig, T. Olsson, J. Yu-Ping, B. Höjeberg, M. Cruz & H. Link</i>	73
Conglutinin Binds the HIV-1 Envelope Glycoprotein gp 160 and Inhibits its Interaction with Cell Membrane CD4. <i>O. Andersen, A.-M. Sørensen, S.-E. Svehag & E. Fenouillet</i>	81
Defective Candida Opsonin and Procidin Function in Patients with Recurrent Pyogenic Infection: A Common Immunodeficiency. <i>J. M. Parkin, J. Bridges, K. S. Sloper, J. O. Warner & A. J. Pinching</i>	89
Erratum	96
Newsletter to Members of the Scandinavian Society for Immunology. <i>Per Brandtzaeg</i>	

Volume 33, No. 2, February 1991

EDITORIAL. Has Immunoglobulin Come to a Sticky End? <i>R. E. Langman & M. Cohn</i>	99
EDITORIAL DISCUSSION. The Immunoglobulin Receptors on B Cells Bind Antigen, Focus Activation Signals to Them and Initiate Antigen-Presentation. <i>G. Möller, M. Alarcon-Riquelme, B. Clinchy, C. M. Gontijo & I. Høiden</i>	111
EDITORIAL RESPONSE. Rebuttal of Argument that B Cell Ig is Non-signalling. <i>R. E. Langman & M. Cohn</i>	117
The Effects of Interleukins 4 and 5 on the Differentiation of B cells from (NZB×NNW)F1 Mice. <i>M. E. Alarcon-Riquelme, G. Möller & C. Fernandez</i>	119
Allorecognition of HLA DR2 and DR5 Molecules by V-Beta-8-Positive T-Cell Clones. <i>K. E. Wilson, E. Ball, P. Stasny & J. D. Capra</i>	131
Discrete Association of CD3 and CD4 Molecules in T-Cell Stimulation Acting Through the Autologous Mixed Lymphocyte Reaction and the CD3/T-Cell Receptor Complex in Human Autoreactive T-Cell Clones. <i>M. Hara, A. Kitani, M. Harigai, K. Suzuki, T. Hirose, M. Kawakami, M. Kawagae & H. Nakamura</i>	141
Selective Enhancement of Leu-Cam Expression by Interleukin 6 during Differentiation of Human Promonocytic U937 Cells. <i>A. J. Duits, S. M. Jainandunsing, J. G. J. van de Winkel & P. J. A. Capel</i>	151
Lymphocyte-Selective Cytostatic and Immunosuppressive Effects of Mycophenolic Acid in Vitro: Role of Deoxyguanosine Nucleotide Depletion. <i>E. M. Eugui, S. J. Almquist, C. D. Muller & A. C. Allison</i>	161
Lymphocyte-Selective Antiproliferative and Immunosuppressive Effects of Mycophenolic Acid in Mice. <i>E. M. Eugui, A. Mirkovich & A. C. Allison</i>	175
NK and LAK Susceptibility Varies Inversely with Target Cell MHC Class I Antigen Expression in a Rat Epithelial Tumour System. <i>E. Carbone, L. Racioppi, A. La Cava, G. Portella, F. Velotti, S. Zappacosta & S. Fontana</i>	185
A Monoclonal Antibody to the Mycobacterial 65kDa Heat Shock Protein (ML30) Binds to Cells in Normal and Arthritic Joints of Rats. <i>S. Kleinau, K. Söderström, R. Kiessling & L. Klareskog</i>	195

Flow Cytometric Analysis of CD2 Modulation on Human Peripheral Blood T Lymphocytes by Dharmendra Preparation of <i>Mycobacterium leprae</i> . R. Sheela, S. Ilangumaran & V. R. Muthukkaruppan	203
Expression of CD40 and CD43 during Activation of Human B Lymphocytes. P. Björck, B. Axelsson & S. Paulie	211
Activation of Human T Lymphocytes by <i>Leishmania</i> Lipophosphoglycan. M. Kemp, T. G. Theander, E. Handman, A. S. Hey, J. A. L. Kurtzals, L. Hviid, A. L. Sørensen, J. O. B. Were, D. K. Koeck & A. Kharazmi	219
Immune Response to Prolonged Intestinal Exposure to Antigen. A. Kantele	225
A Rapid Microtitration Plate Assay for Non-Specific Esterase. O. Sonne, K. Pedersen, K. Kudahl & S. Fisker	231
SHORT PAPER. Gastric Epithelial Cells in <i>Helicobacter pylori</i> -Associated Gastritis Express HLA-DA but not ICAM-1. A. Scheynius & L. Engstrand	237
Volume 33, No. 3, March 1991	
EDITORIAL. Major Histocompatibility Complex: A System for the Specific Modulation of Differentiated Cells? G. Hoecker & Alicia Ramos	243
Activated CD3 ⁺ CD16 ⁺ Natural Killer Cell Express a Subset of the Lymphokine Genes Induced in Activated $\alpha\beta^+$ and $\gamma\delta^+$ T cells. R. Biassoni, S. Ferrini, I. Prigione, V. S. Pelak, R. P. Sekaly & E. O. Long	247
Mechanism of T-Cell Activation by Mycobacterial Antigens in Inflammatory Synovitis. A. M. Burford-Foggs, S. P. Sambol & R. M. Pope	253
The IgG FcRII and the PI-linked IgG FcRIII Trigger Cytoplasmic Calcium Fluxes Independently in Human Granulocytes. F. Lund-Johansen, Johanna Olweus, A. Aarli & R. Bjerknes	261
Studies on the Thymus in Chagas' Disease. II. Thymocyte Subset Fluctuations in <i>Trypanosoma cruzi</i> -infected mice: Relationship to Stress. M. C. Leite De Moraes, M. Hontebeyrie-Joskowicz, F. Le Boulenger, W. Savino, M. Dardenne & F. Lepault	267
Regulation and Functional Involvement of Distinct Determinants of Leucocyte Function-Associated Antigen 1 (LFA-1) in T-Cell Activation In Vitro. C. Vermot Desroches, D. Rigal & C. Andréoni	277
Interleukin 4 and Interferon Gamma Production in Restimulated CD4 ⁺ and CD8 ⁺ Cells Indicates Memory Type Responsiveness. B. Sander, S. Cardell & E. Möller	287
Phagocytosis of β -1,3-D-Glucan-Derivatized Microbeads by Mouse Peritoneal Macrophages Involves Three Different Receptors. Z. Konopski, L.-T. Rasmussen, R. Seljelid & T. Eskeland	297
The Influence of T Cells on the Immunoglobulin Repertoire and the Affinity Maturation of the Immune Response Against Dextran B512 in C57BL/6 Mice. C. Fernandez & G. Möller	307
A Comprehensive Immunological Analysis in Chronic Fatigue Syndrome. S. Gupta & B. Vaynwegula	319
Auto- and Polyreactivity of IgM from CD5 ⁺ and CD5 ⁻ Cord Blood B Cells. L. E. Mackenzie, P. Y. Youinou, R. Hicks, B. Yuksel, R. A. Mageed & P. M. Lydyard	329
Volume 33, No. 4, April 1991	
The Nobel Lectures in Immunology Lecture for the Nobel Prize for Physiology or Medicine, 1960: Immunological Tolerance. Peter Brian Medawar	337
A Monoclonal IgM Antibody to a Methylcholanthrene-Induced Tumour. D. Gigliotti, S. Teneberg, R. Andersson, J. Angström, K.-A. Karlsson, H. Wigzell & M. Hansson	345
The Effect of 20-Trifluoromethyl Leukotriene B ₄ on Neutrophil Functional Responses. E. Nilsson, H. Gyllenhammar, R. Lerner, J. Palmblad & B. Ringertz	357
Differential Effects of Interferon- γ and Low Molecular Weight BCGF on Growth of Human B Lymphocytes; Interferon- γ Prolongs the Increased c-MYC mRNA Levels After Activation. J. Lomo, E. B. Smeland, T. Stokke, H. Holte, S. Funderud & H. K. Blomhoff	365
Characterization of a Monoclonal Antibody Directed Against the Phosphotyrosine Kinase p56 ^{lck} , in Human T Cells. I. J. Ansotegui, S. C. Chow, M. Jaddi-Tehrani, S. Meloche, A. Pawson, R.-P. Sekaly, T. W. Mak & H. Wigzell	375
Non-immune VH-binding Specificity of Human Protein Fv. J.-P. Bouwet, R. Pires, C. Quan, S. Iscaki & J. Pillot	381

CD5 ⁺ B-Lymphocytes are as Dependent on T-Helper Cells and as Responsive to T-Suppressor Cells in Pokeweed Mitogen-Stimulated Activation as Conventional CD5 ⁻ B-Lymphocytes. <i>B. M. Jones</i>	387
Mechanism of Calcium Ionophore and Phorbol Ester-Induced T-cell Activation. Accessory Cell Requirement for T-cell Activation. <i>S. Hashimoto, Y. Takahashi, Y. Tomita, T. Hayama, S. Sawada, T. Horie, C. C. McCombs & J. P. Michalski</i>	393
Adenosine Deaminase and Thymocyte Maturation. <i>P. J. Doherty, S. Pan, J. C. Mulloy, E. Thompson, P. Thorner, J. Barankiewicz, C. M. Roifman & A. Cohen</i>	405
Oligopeptide Induction of a Secondary Cytotoxic T-cell Response to Epstein-Barr Virus In Vitro. <i>C. Schmidt, S. R. Burrows, D. J. Moss, T. B. Sculley & I. S. Misko</i>	411
Human Natural Killer Cells Express Different Integrins and Spread on Fibronectin. <i>I. Virtanen, J. Yläne, T. Vartio & E. Saksela</i>	421
Characterization of Nickel-Specific T Cell Clones. <i>S. Silvenmoinen-Kassinen, K. Poikonen & I. Ikäheimo</i>	429
Glycosylation is Required for Coronavirus TGEV to Induce an Efficient Production of IFN α by Blood Mononuclear Cells. <i>B. Charley, L. Lavenant & B. Delmas</i>	435
Human Follicular Dendritic Cells: Isolation and Characteristics in Situ and in Suspension. <i>H. K. Parmentier, J. A. van der Linden, J. Krijnen, D. F. van Wichen, L. H. P. M. Rademakers, A. C. Bloem & H.-J. Schuurman</i>	441
T Lymphocytes Degrade Fibronectin. <i>S. E. Bergström, D. Hauzenberger & K. G. Sundqvist</i>	453
The Effect of Various Contexts of Stress on the Mouse Spleen Lymphocytes and Macrophage Co-stimulatory Activity. <i>H. J. Aarstad, D. Thiele & R. Seljelid</i>	461
Differential Kinetics of Various Subsets of Thymic Bone Marrow-Derived Stromal Cells in Rat Chimeras. <i>M. B. Murawska, A. M. Duijvestijn, F. A. Klatter, W. Ammerlaan, B. Meedendorp & P. Nieuwenhuis</i>	473
SHORT PAPER. Highly Polymorphic Domains of the Human Serum Amyloid A (SAA) Gene GSAA1. <i>G. H. Sack, Jr & C. C. Talbot, Jr</i>	485
Volume 33, No. 5, May 1991	
EDITORIAL. The Selfish Id: An Alternative View of the Idiotypic Network. <i>E. S. Golub</i>	489
EDITORIAL RESPONSE. The Servant Idiotypic Network. <i>H. Kohler</i>	495
EDITORIAL REPLIES to Heinz Kohler and Ed Golub.	498
Increased Frequencies of the CD29 and CD57 Markers and Decreased Frequency of CD45RA Within CD4 ⁺ and CD8 ⁺ Subsets after Allogeneic Bone Marrow Transplantation in Man. <i>J. Møller, E. Dickmeiss, L. P. Ryder, N. Jacobsen & A. Svejgaard</i>	499
Analysis of Type II Collagen Reactive T Cells in the Mouse. II. Different Localization of Immunodominant T Cell Epitopes on Heterologous and Autologous Type II Collagen. <i>M. Andersson, M. A. Cremer, K. Terato, H. Burkhardt & R. Holmdahl</i>	505
Differentiation of Macrophage Precursors to Cells with LAK Activity under the Influence of CSF-1 and High Dose IL-2. <i>Hao Li, E. Kniep, A. Emmendorffer & M.-L. Lohmann-Matthes</i>	511
Inhibition of Human Natural Killer Cell Activity by Plate-Derived Growth Factor (PDGF). III. Membrane Binding Studies and Differential Biological Effects of Recombinant PDGF Isoforms. <i>G. M. Gersuk, B. Westermarck, A. J. Mohabeer, P. M. Challita, S. Pattamakom & P. K. Pattengale</i>	521
The Variability of Immunoglobulins and Albumin in Salivary Secretions of Children. <i>M. Gleeson, A. J. Dobson, D. W. Firman, A. W. Cripps, R. L. Clancy, J. H. Wlodarczyk & M. J. Hensley</i>	533
D-D Recombination Diversifies the CDR 3 Region of Chicken Immunoglobulin Heavy Chains. <i>A. Mansikka & P. Toivanen</i>	543
Influence of HIV Antigens on Functional Activity of Neutrophilic Granulocytes in Patients with HIV Infection. <i>D. I. Gabrilovich, A. T. Kozhich, Z. K. Suworova, V. S. Ivanov, S. A. Moshnikov, L. D. Chikin, O. V. Kolezunkova & V. V. Pokrovsky</i>	549
Natural Killer (NK) Cell Activity in Mice with Acute Graft-Versus-Host Reactions: Characterization of a Thy-1 ⁺ NK-Like Cell with a Broadened Spectrum of Lytic Activity in the Spleen and Lymph Nodes. <i>G. C. MacDonald & J. G. Gartner</i>	553
Cellular Mechanisms of Graft-Versus-Host Disease in a Mouse Model. <i>L. De Giorgi, M. W. Lowdell & A. Matossian-Rogers</i>	567
Interferon-Gamma Enhances PAF-Acether Production by Stimulated Human Polymorphonuclear Leucocytes. <i>J. R. Geffner, M. A. Schattnier, M. A. Lazzari & M. A. Isturiz</i>	575

Effect of the <i>In Vitro</i> Ageing on the Restriction of Sheep Erythrocyte Lysis by Horse Serum. <i>A. I. Assis, G. Pereira, A. E. C. S. Azzolini & J. E. Barbosa</i>	579
The Presence of Anti-Protein A Antibodies in Patients with Rheumatoid Arthritis. <i>T. Takeuchi, O. Hosono, J. Koide, K. Amano, H. Sekine & T. Abe</i>	585
Regulation of Human Interleukin-2 and Interferon-Gamma Gene Expression by Suppressor T Lymphocytes. <i>M. Ketzinel, S. Efrat, D. Sayar, L. Gerez, C. Tal, E. Deutsch, G. Arad & R. Kaempfer</i>	593
Regulation of Interleukin-6 Production in Human Fetal Kupffer Cells. <i>W. H. Kutteh, W. E. Rainey & B. R. Carr</i>	607
'E-Boxes' as Promoter Elements in B Cell Lines and Untransformed B Lymphocytes. <i>E. Högbom, A.-C. Magnusson & T. Leanderson</i>	615
C5 Does not Play a Major Role in the Immune Response of Mice to SRBC <i>In Vivo</i> . <i>C. W. van den Berg, P. J. van Horsen, F. M. A. Hofuis, P. C. Aerts & H. van Dijk</i>	621
Volume 33, No. 6, June 1991	
T-Cell Receptor Gene Expression by Human $\gamma\delta$ T-Cell Clones from Peripheral Blood and Reproductive Tissues in Relation to Non-MHC-Restricted Cytotoxic Function. <i>S. E. Christmas</i>	627
Natural Killer Function in the Rat with Interstitial Nephritis. <i>T. Bricio & F. Mampaso</i>	639
Idiotypic-Specific, Major Histocompatibility Complex Restricted T Cells are of both Th1 and Th2 Type. <i>G. F. Lauritszen & B. Bogen</i>	647
Serum Amyloid A Isoforms in Inflammation. <i>J. G. Raynes & K. P. W. J. McAdam</i>	657
Human Umbilical Vein Endothelial Cells Synthesize Functional C3, C5, C6, C8 and C9 <i>In Vitro</i> . <i>E. Johnson & G. Hetland</i>	667
The Effect of Stress <i>In Vivo</i> on the Function of Mouse Macrophages <i>In Vitro</i> . <i>H. J. Aarstad, S. O. Kolset & R. Seljelid</i>	673
Capacity of CD8 ⁺ T Cells to Reject Immunogenic Variants of a Spontaneous Murine Carcinoma: Lack of Non-Specific (NK1.1 ⁺) Effector Mechanisms. <i>B. E. Elliott, A. Barron, L. Maxwell, D. A. Carlow, S. MacNaughton & H. Pross</i>	683
The Adjuvant Action of Cholera Toxin is Associated with an Increased Intestinal Permeability for Luminal Antigens. <i>N. Lycke, U. Karlsson, A. Sjölander & K.-E. Magnusson</i>	691
The Complex of α_2 -Macroglobulin with CD2 in the Plasma of Gastric Carcinoma Patients. <i>E. P. Smorodin & O. A. Kurtenkov</i>	699
Granulocyte-Dependent Extracellular Toxicity is Enhanced by Complement C3bi and Independent of Phagocytosis. <i>A. Kojima, K. Hazeki & T. Seya</i>	707
Different Activation Signals are Required for the Expression of Interleukin-1 α and β Genes in Human Monocytes. <i>M. Hurme & E. Serkkola</i>	713
IgG Subclasses in Bronchoalveolar Lavage Fluid from Patients with Asthma. <i>T. A. Out, E. A. van de Graaf, N. J. van den Berg & H. M. Jansen</i>	719
Effect of <i>Salmonella</i> Bacteria on the Interaction of Human NK Cells with Endothelial Cells. <i>M. Pinola & E. Saksela</i>	729
Expression of CD26 (Dipeptidyl Peptidase IV) on Resting and Activated Human T-Lymphocytes. <i>T. Mattern, W. Scholz, A. C. Feller, H.-D. Flad & A. J. Ulmer</i>	737
Primary Biliary Cirrhosis (PBC): Characterization of a Monoclonal Antibody (PBC-MoAB) having Specificity Identical with Disease-Associated Autoantibodies. <i>A. Björkland, I. Mendel-Hartwig, B. D. Nelson & T. H. Tötterman</i>	749
Mechanisms of Generation of Antibody Diversity as a Cause for Natural Selection of Homoiothermal Animals in the Process of Evolution. <i>V. P. Zav'yalov & V. M. Tishchenko</i>	755
Subcellular Distribution of Monoclonal Antibody Defined Epitopes on Immunodominant <i>Mycobacterium tuberculosis</i> Proteins in the 30-kDa Region: Identification and Localization of 29/33-kDa Doublet Proteins on Mycobacterial Cell Wall. <i>A. Rambukkana, P. K. Das, A. Chand, J. G. Baas, D. G. Groothuis & A. H. J. Kolk</i>	763
SHORT PAPER. Anti-Interleukin-6 Antibodies in Normal Human Serum. <i>M. B. Hansen, M. Svenson, M. Diamant & K. Bendtzen</i>	777
SHORT PAPER. Characterization of High Molecular Weight Amyloid A Proteins. <i>F. Prelli, M. Pras, S. Shtrasburg & B. Frangione</i>	783
Author Index	787

